AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-279

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*** 2008 AMSAT Space Symposium and Annual General Meeting ***
*** October 24-26 in Atlanta, Georgia ***
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ANS is a free, weekly, news and information service of AMSAT North America, The
Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-279.01
AMSAT Symposium Just Weeks Away

AMSAT News Service Bulletin 279.01
From AMSAT HQ SILVER SPRING, MD.
October 5, 2008
To All RADIO AMATEURS
BID: $ANS-279.01

The 2008 AMSAT Space Symosium in Atlanta, GA is just weeks away, October 24-26.
This promises to be a very interesting symposium with presentations scheduled on
a wide range of topics from the simplest operations with an HT to some of the
latest ideas on digital communications. Every orbit; LEO, MEO, Geo and beyond
will be covered. There will also be an extended general membership meeting as
well as the ever popular Field Ops Breakfast.

Martha reminds everyone that room block with the special $125 per night rate for
the 2008 AMSAT Space Symposium will be gone on October 8th. PLEASE make your
reservations as soon as possible. The phone number is 404-231-1234.

The AMSAT board meeting preceeds the Symposium at the same hotel Oct 23-24.

[ANS thanks the 2008 Symposium Committee for the above information]

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SB SAT @ AMSAT $ANS-279.02
First Chinese Amateur Radio Satellite to be launched in June 2009

AMSAT News Service Bulletin 279.02
  From AMSAT HQ SILVER SPRING, MD.
October 5, 2008
To All RADIO AMATEURS
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Michael Chen, BD5RV/4, reports that he recently received an update from
Alan,
BA1DU, on the progress of the first Chinese amateur satellite.  Things are
now
going smoothly. This satellite was formerly named CAS-1 and is now XW-1. It
carries a beacon and three cross band transponders: FM, linear, and digital.

The satellite is planned to be launched into a Sun synchronous orbit in June
2009 by a CZ-2C rocket in Taiyuan Satellite Launch Center in North China.

[ANS thanks Michael, BD5RV/4, for the above information]

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SB SAT @ AMSAT $ANS-279.03
General Astrodynamics Library v0.4.0 Released

AMSAT News Service Bulletin 279.03
  From AMSAT HQ SILVER SPRING, MD.
October 5, 2008
To All RADIO AMATEURS
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Version 0.4.0 of the General Astrodynamics Library has been released.
It can be downloaded from the project website here:

http://homepage.mac.com/pclwillmott/GAL/index.html

Updates in this release:

Higher precision ephemerides for the Sun, Planets, and Pluto.
Implemented using VSOP87. Heliocentric and barycentric routines for
position and velocity provided.

Support added for classical Keplerian models, circular, elliptical,
parabolic, and hyperbolic orbits and trajectories supported. Keplerian
propagation implemented using the Universal formulation.

Release includes some additional support files, and minor updates.

Work continues with the atmosphere, and remaining force models.

The General Astrodynamics Library (GAL) is a numerical library for C
and C++ programmers. It is free software under the GNU General Public
License.

The library provides a wide range of astrodynamical routines such as
ephemerides, earth orientation, and orbit propagation. There are over
250 functions in total with an extensive test suite.

[ANS thanks Paul, VP9MU, for the above information]

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SB SAT @ AMSAT $ANS-279.04
Falcon 1 Rocket Successfully Launches to Orbit

AMSAT News Service Bulletin 279.04
From AMSAT HQ SILVER SPRING, MD.
October 5, 2008
To All RADIO AMATEURS
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Space Exploration Technologies Corp. (SpaceX) announces that Flight 4 of the Falcon 1 launch vehicle has successfully launched and achieved Earth orbit. With this key milestone, Falcon 1 becomes the first privately developed liquid fuel rocket to orbit the Earth.

"This is a great day for SpaceX and the culmination of an enormous amount of work by a great team," said Elon Musk, CEO and CTO of SpaceX. "The data shows we achieved a super precise orbit insertion-middle of the bull's-eye - and then went on to coast and restart the second stage, which was icing on the cake."

The Falcon 1 lifted off at 4:15 p.m. (PDT) / 23:15 (UTC) from the Reagan Test Site (RTS) on Omelek Island at the U.S. Army Kwajalein Atoll (USAKA) in the Central Pacific, about 2,500 miles southwest of Hawaii.

Preliminary data indicates that Falcon 1 achieved an elliptical orbit of 500 km by 700 km, 9.2 degrees inclination-exactly as targeted.

Falcon 1 carried into orbit a payload mass simulator of approximately 165 kg (364 lbs), designed and built by SpaceX, specifically for this mission. Consisting of a hexagonal aluminum alloy chamber 1.5 meters (5 feet) tall, the payload remains attached to the second stage as it orbits Earth.

For more information about the Falcon family of vehicles, and to watch the archived video of the Falcon 1, Flight 4 launch, visit the SpaceX website at www.spacex.com

[ANS thanks SpaceX for the above information]
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SB SAT @ AMSAT $ANS-279.05
ARISS Status - 29 September 2008

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1. Upcoming School Contact - Status

The Amateur Radio on the International Space Station (ARISS) team continues its work on scheduling the next school radio contacts.

2. ARISS - UK School Contact, Successful

Students attending the Michael Sobell Sinai School in Harrow, Middlesex, UK experienced an Amateur Radio on the International Space Station (ARISS) contact
on Thursday, September 25 via telebridge station WH6PN in Hawaii. Eleven students asked astronaut Greg Chamitoff, KD5PKZ,
15 questions before an audience
of 200. The audio was fed into the EchoLink AMSAT server and received 15 connections from seven countries.  Four television stations covered this event.
The BBC article may be viewed here:
http://news.bbc.co.uk/2/hi/uk_news/england/london/7636229.stm

3. Astronaut Training Status

Shannon Walker, KD5DXB, participated in an ARISS (Amateur Radio on the International Space Station) training session on Monday, September 22.  She plans to support ARISS activities when she flies on a future ISS Expedition.

4. ARISS International Meeting Held

The Amateur Radio on the International Space Station (ARISS) team held its monthly teleconference on September 23. Discussions covered the flight backup
ARISS equipment, including the Kenwood D700 radio, which is expected to be swapped out at the end of the month. Other items on the agenda were Richard Garriott's ARISS schedule and SuitSat-2 progress. The minutes have been posted
to the ARISS Web site.  See: http://www.rac.ca/ariss/arisstel2008-09-23.htm

5. CLC Posts Garriott Press Release

The Challenger Learning Center (CLC) has posted a
press release covering Richard
Garriott and his upcoming Amateur Radio on the International Space Station (ARISS) contacts with CLCs across the country. See:
http://www.challenger.org/about/media/release.cfm?release_id=79

[ANS thanks Carol, KB3LKI, for the above information]

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In addition to regular membership, AMSAT offers membership in the President's
Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are
available from the AMSAT Office.

73,
This week's ANS Editor,
Lee McLamb, KU4OS